

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	8	demmer jeroen	US-PGPUB; USPAT; EPO; JPO; DERWENT	NEAR	ON	2005/05/13 10:42
L2	174	FESTUCA ARUNDINACEA	US-PGPUB; USPAT; EPO; JPO; DERWENT	NEAR	ON	2005/05/13 10:42
L3	5	l2 and (antifreeze OR anti-freeze)	US-PGPUB; USPAT; EPO; JPO; DERWENT	NEAR	ON	2005/05/13 10:42
L4	7	(US-20040126843-\$ or US-20040146884-\$ or US-20030237108-\$ or US-20030180751-\$). did. or (WO-2004022755-\$ or WO-3093464-\$ or WO-3040306-\$).did.	US-PGPUB; EPO	OR	ON	2005/05/13 10:43

=> d his

(FILE 'HOME' ENTERED AT 10:51:06 ON 13 MAY 2005)

FILE 'MEDLINE, CANCERLIT, AGRICOLA, CAPLUS, SCISEARCH' ENTERED AT
10:51:25 ON 13 MAY 2005

L1 5002 S FESTUCA ARUNDINACEA
L2 6784 S ANTI-FREEZE OR ANTIFREEZE
L3 2 S L1 AND L2
L4 2 DUP REM L3 (0 DUPLICATES REMOVED)
E DEMMER JER?/AU
L5 11 S E5
L6 0 S L5 AND L1
L7 0 S L5 AND L2
L8 3 S E4
L9 1 S L8 AND L2
L10 2 S L9 OR L4

=> d an ti so au ab pi l10 1-2

L10 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:220424 CAPLUS

DN 140:249010

TI Antifreeze proteins isolated from forage grasses and their use
in modulating cold tolerance in transgenic organisms and for reduced
drying times

SO PCT Int. Appl., 71 pp.

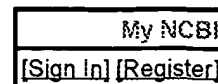
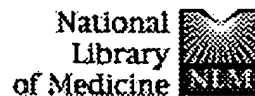
CODEN: PIXXD2

IN Demmer, Jeroen; Shenk, Michael Andrew; Hall, Claire; Fish,
Steven A.

AB The present invention provides 13 antifreeze proteins that are
encoded by polynucleotides isolated from forage grass tissues. The cDNAs
were isolated from perennial ryegrass (*Lolium perenne*) and tall fescue (*Festuca arundinacea*) tissues taken at different times of
the year, specifically in winter and spring, and from different parts of
the plants, including leaf blades, leaf base, pseudostems, roots, and
stems. The invention also provides genetic constructs, expression vectors
and host cells comprising the polynucleotides, and methods for using the
polynucleotides and genetic constructs to modulate the cold tolerance of
organisms, such as plants. Transformation of *Arabidopsis* plants with
grass antifreeze protein genes increased the freezing tolerance
of antifreeze protein-expressing plants. The antifreeze
proteins also change ice crystal size and reduce drying time of liqs. in a
SpeedVac vacuum concentrator.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2004022700	A2	20040318	WO 2003-NZ199	20030909
WO 2004022700	A3	20040506		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2004146884	A1	20040729	US 2003-657852	20030909

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May 2 2003 17:45:08